WARDS ISLAND

City of New York DEPARTMENT OF ENVIRONMENTAL PROTECTION Bureau of Wastewater Treatment

WARDS ISLAND WASTEWATER TREATMENT PLANT

US EPA 40 CFR Part 503 Use or Disposal of Sewage Sludge 2013 Annual Report

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by

City of New York, Department of Environmental Protection Bureau of Wastewater Treatment SPDES Compliance Section 96-05 Horace Harding Expressway Corona, New York 11368 (718) 595-5056



February 2014

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Requisite information, specific to the Wards Island WWTP is provided below.

FACILITY NAME	LOCATION	DEWATERING FACILITY	SPDES PERMIT #	CONTACT PERSON	PROCESS ENGINEER
Wards Island Wastewater Treatment Plant	Wards Island New York, NY 10035	Yes	NY0026131	Superintendent John McCabe (212) 860-9351	Steven Moltz

Additional Permits

Facility Name	Location	Permit Name	Permit #	Type of Permit (Federal, State)
Wards Island Wastewater Treatment Plant	Wards Island New York, NY 10035	Air State Facility Permit	262030000500049	State

I. WARDS ISLAND LIQUID SLUDGE QUANTITIES

A. <u>LIQUID SLUDGE PRODUCTION AND OUTGOING LIQUID SLUDGE</u> <u>ALLOCATIONS</u>

For the reporting period of January 1 through December 31, 2013 all anaerobically digested, thickened sewage sludge generated at Wards Island was dewatered at the Wards Island sludge dewatering facility. Approximately 25,006 dry metric tons of Wards Island sludge were generated. Table 3 and Table 4A of Appendix A contains the monthly liquid sludge production and allocation figures in dry metric tons for this reporting period.

II WARDS ISLAND LIQUID SLUDGE AND BIOSOLIDS QUALITY

A. <u>METALS ANALYSES</u>

Table 5A and Table 5B of Appendix B summarize the average monthly metals concentrations for the liquid sludge and biosolids generated at the Wards Island WWTP. The monthly metals concentrations represent an arithmetic average of the results from the analyses of <u>all</u> samples of Wards Island biosolids generated each month.

During this reporting period, Wards Island biosolids contained concentrations of metals that always met the Ceiling Concentration Limits for twelve (12) months as listed in Table 1 of 40 CFR Part 503.13(b)(1). Further, during twelve (12) months in 2013, Wards Island biosolids contained concentrations of metals that met the Pollutant Concentration Limits as listed in Table 3 of 40 CFR Part 503.13(b)(1).

III. WARDS ISLAND BIOSOLIDS ALLOCATIONS

BIOSOLIDS FROM THE WARDS ISLAND WASTEWATER TREATMENT PLANT DISTRIBUTED TO SLUDGE MANAGEMENT CONTRACTORS AT THE WARDS ISLAND DEWATERING FACILITY. (SUMMARY IS SHOWN IN TABLE 4B IN APPENDIX B).

A. Tully Environmental under Contract 947ADM3

Approximately <u>634.93</u> dry metric tons of the biosolids mix were distributed to **Tully Environmental** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

B. EPIC under Contract 1247-BIO

Approximately <u>7,320.02</u> dry metric tons of the biosolids mix were distributed to **EPIC** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

C. Coastal Distribution under Contract 1250-BIO

Approximately <u>7,808.74</u> biosolids mix from the Wards Island dewatering facility was distributed to Coastal Distribution (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

D. Interstate Waste Services under Contract 1280-BIO

Approximately <u>252.42</u> dry metric tons of the biosolids mix were distributed to **Interstate Waste Services** (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

E. We Care Organics under Contract 1236-BIO

Approximately <u>7,560.58</u> dry metric tons of the biosolids mix were distributed to We Care Organics (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

F. We Care Organics under Contract 1308-BIO

Approximately 3,584.72 dry metric tons of the biosolids mix were distributed to We Care Organics (see introduction for processing details) from the Wards Island dewatering facility during this reporting period.

Table 2 in the introduction contains requisite information specific to each of the eight sludge management contractors.

APPENDICES

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APPENDIX - A

Table 3	
Table 4A	Monthly Liquid Sludge
	Allocations to Contractors
Table 4B	Monthly Biosolids Allocations to
	Contractors

Table 3
Monthly Liquid Sludge Production
Wards Island WWTP

Month	Liquid Sludge Production (DMT)*
January-13	1,653
February-13	1,932
March-13	1,875
April-13	2,370
May-13	2,296
June-13	1,825
July-13	1,884
August-13	1,873
September-13	1,902
October-13	2,059
November-13	2,182
December-13	3,154
TOTALS	25,006

Notes:

^{*} Dewatered sludge production is expressed in dry metric tons (DMT).

Table 4A

Monthly Liquid Sludge Allocations

Wards Island WWTP

	26th Ward	Bowery Bay	Hunts Point	Jamaica	Oakwood Beach	Red Hook	North River	Wards Island	PVSC	TOTALS
Month	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*
Jan-13	·								•	0.00
Feb-13										0.00
Mar-13										0.00
Apr-13							1			0.00
May-13				-						0.00
Jun-13	-									0.00
Jul-13			-							0.00
Aug-13										0.00
Sep-13										0.00
Oct-13										0.00
Nov-13										0.00
Dec-13										0.00
		Ī								
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

*Liquid sludge transportation is expressed in dry metric tons (DMT).

Table 4B

Monthly Biosolids Allocations to Contractors

Wards Island Dewatering Facility

	Tully Environmental	EPIC (Landfill)	Coastal Distributions	Interstate Waste Services	We Care Organics	We Care Organics	TOTALS
	Contract 947 ADM3	Contract 1247-BIO	Contract 1250-BIO	Contract 1280-BIO	Contract 1236-BIO	Contract 1308-BIO	
Month	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*	(DMT)*
Jan-13		229.43	1689.86				1,919.29
Feb-13		757.49	1738.25		· · · · · · · · · · · · · · · · · · ·		2,495.75
Mar-13		1079.32	1236.31	137.07			2,452.70
Apr-13	552.84	949.10	1091.87				2,593.81
May-13	82.09	42.18	2052.44	•			2,176.71
Jun-13		839.27		28.83	817.99		1,686.09
Jul-13		325.83			1531.31		1,857.14
Aug-13		685.54	[28.25	1510.75		2,224.54
Sep-13		527.01			1571.28		2,098.28
Oct-13		880.38			1556.98		2,437.36
Nov-13		465.91			572.27	1267.78	2,305.97
Dec-13		538.56		58.27		2316.94	2,913.78
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TOTALS	634.93	7,320.02	7,808.74	252.42	7,560.58	3,584.72	27,161.41

Notes:

^{*}Biosolids allocation is expressed in dry metric tons (DMT).

APPENDIX - B

Table 5A	Monthly Average	Metals Data for Liquid
	Sludge	

Table 5B......Monthly Average Metals Data for Biosolids

Table 5A

Monthly Metals Concentrations for Liquid Sludge

Wards Island WWTP

	METALS										
Month	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
January-13	0.0607	0.0031	0.0725	0.5440	10.20	2.08	0.0530	0.1160	0.3100	0.0650	16.0
February-13	0.0682	0.0031	0.0700	0.5220	9.73	1.90	0.0461	0.1120	0.3220	0.0656	15.3
March-13	0.0663	0.0032	0.0750	0.6080	9.93	2.12	0.0300	0.1190	0.3270	0.0722	16.5
April-13	0.0631	0.0032	0.0526	0.4750	8.55	1.65	0.0168	0.1040	0.2610	0.0638	14.0
May-13	0.0663	0.0043	0.0674	0.6380	9.39	2.29	0.0236	0.1130	0.3360	0.0717	16.5
June-13	0.0613	0.0040	0.0644	0.6170	9.57	2.48	0.0352	0.1090	0.3260	0.0706	15.2
July-13	0.0545	0.0035	0.0663	0.6410	10.70	2.66	0.0226	0.1750	0.3240	0.0680	16.7
August-13	0.0548	0.0040	0.0300	0.5870	11.90	2.66	0.0211	0.1400	0.3250	0.0810	17.2
September-13	0.0443	0.0022	0.0482	0.5850	10.60	2.37	0.0197	0.1330	0.2810	0.0662	15.1
October-13	0.0445	0.0021	0.0455	0.4920	10.70	1.97	0.0182	0.1310	0.2390	0.0728	13.6
November-13	0.0444	0.0022	0.0555	0.5590	12.60	2.19	0.0225	0.1820	0.2750	0.0773	16.0
December-13	0.0442	0.0020	0.0570	0.6520	12.10	2.23	0.0201	0.1560	0.3190	0.0721	15.4

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Table 5B

Monthly Metals Concentrations for Biosolids

Wards Island Dewatering Facility

	METALS										
Month	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Zinc	
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
January-13	3.33	5.67	40.3	633.0	140.0	1.6	11.2	20.7	4.5	998.0	
February-13	4.48	5.59	41.0	594.0	125.0	1.3	8.8	19.5	4.9	961.0	
March-13	3.97	5.42	44.5	588.0	139.0	1.9	7.5	21.0	4.1	979.0	
April-13	4.14	4.95	45.4	567.0	127.0	1.7	10.0	20.1	5.1	931.0	
May-13	3.64	4.41	42.5	545.0	133.0	1.4	8.2	18.8	5.2	913.0	
June-13	3.12	4.71	43.40	503.00	155.0	1.5	7.2	20.7	4.4	890.0	
July-13	1.93	4.06	40.60	602.00	165.0	1.7	12.5	19.0	3.3	997.0	
August-13	2.85	1.83	40.30	601.00	148.0	1.7	9.6	20.8	4.2	1040.0	
September-13	2.43	3.21	36.80	640.00	150.0	1.4	9.5	17.0	4.0	965.0	
October-13	3.08	4.31	39.60	746.00	153.0	1.5	16.6	19.1	4.9	1022.0	
November-13	2.21	4.34	46.20	704.00	145.0	1.6	15.2	19.2	3.7	991.0	
December-13	2.20	3.68	39.60	660.00	161.0	1.9	11.8	22.8	3.4	895.0	

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CONTRACTORS' ISSUES

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CONTRACTORS' ISSUES

There were not issues with any of the contracts for the reporting period of January 1 through December 31, 2013.